

EXHIBIT DD

TUBBS INCIDENT DESCRIPTION & FACTUAL SUMMARY

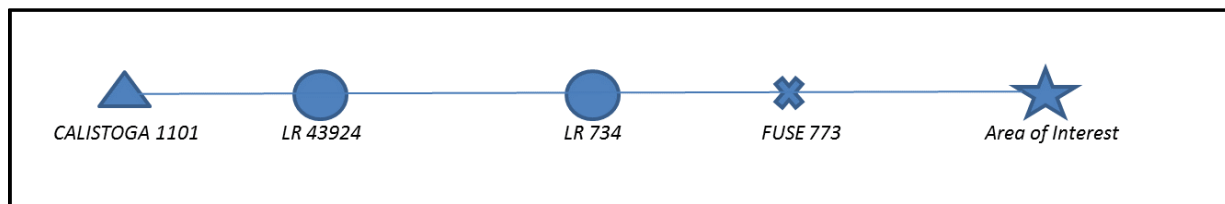
For completeness, this incident description and factual summary should be read in conjunction with the contemporaneously submitted response to Question 62.

Background:

On October 26, 2017, PG&E filed an Electric Safety Incident Report (Incident No. 171026-8601) concerning an incident that occurred near 1128 Bennett Lane, Calistoga, Napa County (the “incident location” as defined by the CPUC’s December 7, 2017, letter). When PG&E was granted access to the incident location on October 25, 2017, PG&E observed that the only apparent damage to PG&E facilities was to a secondary service line that attached to the fire-damaged residential structure at 1128 Bennett Lane.

According to CAL FIRE’s website, the Tubbs fire started at 9:45 PM on October 8, 2017, off of Highway 128 and Bennett Lane in Calistoga.

Incident Overview:



The incident location, which consists of the spans that are one span east and two spans north of Fuse 773, is served by the Calistoga 1101 (12kV) Circuit. Based on PG&E records, on October 8, at 9:20 PM, 18 smart meters downstream of Fuse 773 on the Calistoga 1101 Circuit recorded NIC Power Down events, and one smart meter at service point 3841237905 reported a Last Gasp event. The other 7 smart meters downstream of Fuse 773 have not reported data from October 8 through the end of 2017. Based on PG&E records, at 11:24 PM, Line Recloser 734, the closest line recloser upstream of the incident location, operated and locked out. Line Recloser 734 did not automatically reclose because it was part of the Wildfire Reclosing Operation Pilot Program, through which protection devices in certain high-risk wildfire areas were disabled during fire season in areas that were rated “Very High” or “Extreme” fire risk on a particular day. For additional information on the Pilot Program, please see PG&E’s response to Question 91.

According to a PG&E troubleman who was the first responder on scene, he was assigned to a trouble assessment near Bennett Lane on October 11, 2017. According to the troubleman, he attempted to drive up the driveway of 1128 Bennett Lane to patrol the line, but was denied access by a guard. Based on PG&E records, at 4:25 PM on the same day, during the troubleman’s subsequent patrol along Bennett Lane, the troubleman found two of three fuses blown at Fuse 773. Per the troubleman, he replaced the two blown fuses. Based on PG&E records, at 7:30 PM, the troubleman reported having closed Fuse 773 on a de-energized line. He also opened jumpers on the tap line feeding the incident location and on a pole-mounted transformer serving a structure on the south side of Bennett Lane due to not being able to patrol

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the incident location. According to the troubleman, when he attempted to access the incident location again on October 12, 2017, to patrol the remaining portion of the tap line, CAL FIRE denied him access.

Based on PG&E records, on October 11, 2017, at 8:15 PM, Line Recloser 734 was manually closed, reenergizing parts of the line downstream of Fuse 773. Based on PG&E records, on October 13, 2017 at 1:10 PM, Line Recloser 734 was manually opened, due to ongoing fire activity. Based on PG&E records, on October 14, 2017 at 5:17 PM, Line Recloser 734 was closed manually, reenergizing parts of the line downstream of Fuse 773.

Based on PG&E records, on October 25, 2017, the remaining customers without fire damage downstream of Fuse 773 were restored manually by closing jumpers to the transformer one span east of Fuse 773.

CAL FIRE released the incident location on October 25, 2017.

Evidence Collection:

CAL FIRE collected a set of three distribution line fuses at Fuse 773, two of which the troubleman who was the first responder at the incident location had replaced prior to CAL FIRE's collection. These fuses were energized at the time of CAL FIRE's site visit, but were de-energized by PG&E prior to collection. CAL FIRE collected additional de-energized fuses and a de-energized, downed detached PG&E secondary service line composed of 2-strand aluminum triplex from a pole one span east and two spans north of Fuse 773. In addition, CAL FIRE collected customer-owned connectors and a customer-owned electrical conductor from the incident location, which served multiple pieces of customer-owned equipment at the incident location. Since the publication of the 20-day Electric Incident Report, PG&E became aware that CAL FIRE also collected three smart meters from structures near the incident location. PG&E is unaware of whether CAL FIRE collected additional evidence at the incident location.

On February 7, 2018, PG&E collected sections of copper wire and several paper casings from the ground below Fuse 773. On February 9, 2018, PG&E collected sections of the burnt customer-owned service pole from the incident location. On March 8, 2018, PG&E replaced the pole one span east of Fuse 773 (near 1151 Bennett Lane) due to fire damage. The original wood pole was retained. On April 23, 2018, PG&E collected a smart meter at 1200 Bennett Lane, a property neighboring the incident location, as well as conductor and a portion of a tree from 1128 Bennett Lane. This smart meter was not installed at the time of the fire, as it was a replacement for the meter taken as evidence by CAL FIRE.

Timeline:

Tubbs		
<u>Event</u>	<u>CPUC Bates Number Reference</u>	<u>CAL FIRE Bates Number Reference</u>
<u>October 8, 2017, 9:20 PM:</u> Based on PG&E records, 18 smart meters downstream of Fuse 773 on the Calistoga 1101 Circuit recorded NIC Power Down events, and one smart meter at service point 3841237905 reported a Last Gasp event. The other 7 smart meters downstream of Fuse 773 have not reported data from October 8 through the end of 2017.		PGE-CF_00000033
<u>October 8, 2017, 9:45 PM:</u> According to CAL FIRE's website, the Tubbs fire started at this time.		
<u>October 8, 2017, 11:24 PM:</u> Based on PG&E records, Line Recloser 734, the closest line recloser upstream of the incident location, operated and locked out.	PGE-CPUC_00015429, at 429; PGE-CPUC 00001203, at 220; PGE-CPUC_00007911	PGE-CF_00136422; PGE-CF_00004959; PGE-CF_00000007
<u>October 11, 2017, 4:25 PM:</u> Based on PG&E records, a PG&E troubleman who was the first responder on scene found two of three fuses blown at Fuse 773, and per the troubleman, he replaced them.	PGE-CPUC_00015528	PGE-CF_00136459
<u>October 11, 2017, 7:30 PM:</u> Based on PG&E records, the troubleman reported closing Fuse 773 on a de-energized line.	PGE-CPUC_00015528	PGE-CF_00136459
<u>October 11, 2017, 7:35 PM:</u> Based on PG&E records, the troubleman also reported opening jumpers on the tap line feeding the incident location and on a pole-mounted transformer serving another structure on the south side of Bennett Lane.	PGE-CPUC_00015300	PGE-CF_00136373
<u>October 11, 2017, 8:15 PM:</u> Based on PG&E records, Line Recloser 734 was closed manually.	PGE-CPUC_00015429, at 429	PGE-CF_00136422, at 422
<u>October 13, 2017, 1:10 PM:</u> Based on PG&E records, Line Recloser 734 was manually opened.	PGE-CPUC_00015533	
<u>October 14, 2017, 5:17 PM:</u> Based on PG&E records, Line Recloser 734 was manually closed.	PGE-CPUC_00015367	PGE-CF_00136401
<u>October 25, 2017, 4:34 PM:</u> Based on PG&E records, the remaining customers without fire	PGE-CPUC_00015300; PGE-CPUC 00001203,	PGE-CF_00136373; PGE-CF_00004959

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Tubbs		
<u>Event</u>	<u>CPUC Bates Number Reference</u>	<u>CAL FIRE Bates Number Reference</u>
damage downstream of Fuse 773 were restored manually by closing jumpers to the transformer one span east of Fuse 773.	at 220	
<u>October 25, 2017</u> : CAL FIRE released the incident location. ¹		

¹ PG&E's access to the site remains restricted by plaintiffs' counsel.

Source List:

Source	Brief Description
PGE-CPUC_00001203 PGE-CF_00004959	Tubbs single-line diagram response to CPUC Q28
PGE-CPUC_00017161	Log of Evidence PG&E Collected (amended response)
PGE-CPUC_00012216	Log of Evidence Collected by CAL FIRE (amended response)
PGE-CPUC_00015300 PGE-CF_00136373	ILIS Outage Report 17-0086476
PGE-CPUC_00015528 PGE-CF_00136459	ILIS Outage Report 17-0086438
PGE-CPUC_00015429 PGE-CF_00136422	ILIS Outage Report 17-0085239
PGE-CPUC_00015533	ILIS Outage Report 17-0087141
PGE-CPUC_00015367 PGE-CF_00136401	ILIS Outage Report 17-0087211
PGE-CPUC_00015794	EC Tag #113742355 (completed 3/8/18)
PGE-CPUC_00007911 PGE-CF_00000007	SCADA Data
Response to Question 1	1/31/18 Response to CPUC's October 2017 Wildfire Data Request
Response to Question 91	3/30/18 Response to CPUC's October 2017 Wildfire Data Request
CPUC Letter	12/7/17 Letter Regarding Clarification for Commission's November 21, 2017 Data Request
CPUC Letter	2/16/18 Letter to E. Malashenko Regarding Evidence Collection
Tubbs Initial Electric Incident Report	10/26/17 Initial Electric Incident Report
Tubbs Electric Incident Report	11/27/17 20-Day Electric Incident Report
CAL FIRE Website	Tubbs Fire (Central LNU Complex) Incident Information, (last updated Feb. 9, 2018) http://cdfdata.fire.ca.gov/incidents/incidents_details_info?incident_id=1867
AMI Smart Meter Data	AMI Data including Service Points 3841300556, 3841303705, 3841304769, 2764451369 and 3841239005 (Produced to CAL FIRE as PGE-CF_00000033)
Supplemental AMI Smart Meter Data	Supplemental AMI Data for Service Points 979001798, 2764451369, 2980979305, 3841215005, 3841227505, 3841228605, 3841229605, 3841230605, 3841232717, 3841234805, 3841235905, 3841237905, 3841239005, 3841300556, 3841303705, 3841304769, 3841305705, 5866430205, 8293411205, 2427831535, 3841231705, 3841233816, 3841236952, 3841240002, 3841245205 and 3841246305

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LR 734 Sequence of Events Data	Reclosing operations for LR 734
Supplemental SCADA Data	Supplemental SCADA data for LR 734 from 9/20/17 -- 10/18/17

Factual Report Guidance:

PG&E is providing Incident Description and Factual Summaries (the “Reports”) for each incident location, as defined by the CPUC’s December 7, 2017, letter. In addition to Question 62, these Reports provide a complete response to Question 1. These Reports also provide a partial response to Question 54. Documents and attachments responsive to Question 54 are being produced with that response.

PG&E’s review and collection of records are ongoing, and these Reports are based on information that PG&E believes may be relevant to the incident location, as defined by the CPUC’s December 7, 2017, letter, based on information currently known. In preparing these Reports, PG&E has not included data or information that may not be relevant to the incident location, as defined by the CPUC’s December 7, 2017, based on information currently known, for example:

- Transmission-level outages, which because of their wide-spread impact, may have caused an outage at the incident location, unless the source of the outage appears to have been related to the incident location or the transmission-level outage de-energized the incident location; or
- Certain minor alarms sent by protection devices that did not result in a sustained outage at the incident location.

Raw data has, however, been provided in response to other questions.

PG&E has not reviewed potentially relevant information that is in the possession of CAL FIRE or any other entity. The causes of the incidents are still under investigation and it is premature to draw conclusions about whether the “fire locations” or “incident locations” addressed by these Reports are points of origin.

Moreover, PG&E has relied on some publicly available information provided by third parties, such as CAL FIRE. For example, PG&E has relied on the start times designated by CAL FIRE as indicated in PG&E’s response to Question 25, submitted to the CPUC on January 31, 2018, in generating these Reports. PG&E is not presently able to validate this information.

For these reasons, among others, the facts described in the Reports may or may not be relevant to questions of causation or origin with respect to any incidents, and there may also be other facts not in the Reports that are relevant to questions of causation or origin of any incidents.







In addition, please find a list of additional explanations related to particular points.

Single Line Diagrams

For ease of reference, PG&E has included reproductions of the single line diagrams produced in response to Question 28, submitted to the CPUC on December 29, 2017.. Any reference to “area of interest” in the single line diagrams refers to the incident location, as defined by the CPUC’s December 7, 2017, letter. The single line diagrams show the incident location and the location of all protection devices upstream of the incident location back to the distribution circuit breaker at the substation. Smart Meters, switches, and any devices downstream of incident locations are not shown on the single line diagrams, although they may be referenced in the Reports.

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Below please find a legend that explains the symbols used in the diagrams.

LEGEND					
	Circuit Breaker		Fuse		Line Recloser / Sectionalizer
	Distribution Transformer		Auto Transformer		Area of Interest

First Responders

As indicated above, in response to Question 54, PG&E has included in its Reports an account of the first PG&E employee who attempted to access the incident location before the CPUC's site visit with PG&E to the incident location, as defined by the CPUC's December 7, 2017, letter.

Repair and/or Restoration Work

PG&E has included information related to when repair and/or restoration work was completed. PG&E has not attempted to include all dates on which repair crews were present at or near incident locations, as defined by the CPUC's December 7, 2017, letter, either in the incident overview or the timeline.

Timeline

As indicated above, in response to Question 1, PG&E has included a timeline of certain equipment operations and actions of PG&E employees at or near the incident locations, including during the period 12 hours prior to CAL FIRE's designated start time, as indicated in PG&E's response to Question 25, until the date (if known) when CAL FIRE obtained PG&E facilities for evidence, CAL FIRE released the incident scene, or repair and/or restoration work was completed, whichever event came last. PG&E has not included every possible data point during the timeline time period. Rather, as indicated above, the timelines include information that PG&E believes may be relevant to the incident location, as defined by the CPUC's December 7, 2017, letter, based on information currently known. Where records have been produced, PG&E provided the Bates number. Within a single row, some information may be based on records that have been produced, while other information may be based on records or other information that have not been produced.

Operational Data

PG&E has relied on certain operational data sets (*e.g.*, SCADA, AMI) in preparing these Reports. There may be data discrepancies between different operational data sources. For example, timestamps of a common event across different operational data sources may differ. In these Reports, PG&E has documented to the best of its ability the most accurate occurrence time based on its current understanding.

SCADA Data

SCADA (Supervisory Control And Data Acquisition) data includes alarm and event data remotely collected in real time from data-collection capable devices on PG&E's electric distribution and transmission circuits. Reclosers and circuit breakers are examples of devices that may report SCADA data. Fuses do not have SCADA connectivity and, therefore, do not report SCADA data. SCADA alarms and events memorialize electrical events on a circuit. However, they are associated with the device that collected them and do not include information on the specific cause or precise origin location of the electrical event that they memorialize.

As noted above, PG&E has not included all SCADA events in the Incident Overview or the Timeline. For example, Minimum To Trip ("MTT") alarms have not been included. MTT alarms are generated when a SCADA-enabled device identifies a circuit load that exceeds a maximum threshold load but for less than a certain amount of time. MTT alarms can be frequent and do not include information on the specific cause or origin location of the event that triggered them. A record of all SCADA events and alarms that occurred during the requested time periods has been previously produced in response to Question 25, submitted to the CPUC on January 31, 2018, in the Bates range PGE-CPUC_00007875-7911.

AMI Data

Smart Meters are electric meters designed to record customer electricity usage, primarily for billing purposes. They can record and transmit electrical data including usage, voltage and event data ("Smart Meter" or "AMI" data). In certain situations, data collected by these meters may be helpful to determine information about outages. For example, a Smart Meter's "last gasp" is an event that may show the time at which a specific Smart Meter lost power. In conjunction with data from other Smart Meters, "last gasp" data might indicate when a certain location on the electric grid lost power or some other secondary problem. A "NIC power down" is a recorded log event when a Smart Meter initiates a shut down. A "zero volt reading" occurs when a meter is partially energized (between 25% and 75%) at the time of a reading. Each of these readings will only occur if the communication from the Smart Meter is successfully received (or subsequently retrieved and downloaded if the Smart Meter is still accessible).

As noted above, PG&E has not included all AMI events in the Incident Overview or the Timeline. For example, sag or swell events have not been included. Smart Meters record these events when they detect a decrease (sag) or increase (swell) in voltage above or below a certain threshold for more than a certain period of time. Sag and swell events do not have specific timestamps; the data indicates only that they occurred during a certain time interval. Sag and swell events may indicate unusual activity; however, they do not indicate the location of that unusual activity. Smart Meter data was not requested in the November 21, 2017, Data Requests and has not been produced in response to those Data Requests.

Reclosing Device Operations

PG&E is providing certain times at which reclosing devices "operated" (opened or closed), which could include multiple operations depending on the device's settings before the device ultimately stayed closed or stayed open.

Outage Records

PG&E has relied on certain information from its Integrated Logging Information System Operations Database (“ILIS”) in preparing these Reports. As explained in response to Question 27, submitted to the CPUC on March 30, 2018, ILIS is PG&E’s system of record for distribution transformer-level and above outages. ILIS is the application used by the distribution system operators to document information pertinent to the operation of the electric system. Due to the nature of how information is documented in the application, there may be discrepancies in outage start times and other information between ILIS and other data sources. For example, ILIS does not record single-customer or service-level outages, in accordance with CPUC Decision 96-09-045 and Advice Letter 3812-E on outage reporting requirements. Data from these ILIS records should be reviewed and considered together and in conjunction with those other data sources.

Outage cause information in ILIS is preliminary and is based on the best available information at the time, from initial field intelligence and through spot check quality reviews.

Smart Meter Service Point ID Numbers

Some PG&E records identify Smart Meters by their associated Service Point ID number (“SP_ID”), while other records identify Smart Meters by their associated “Badge” numbers. For consistency, all Reports use SP_ID to identify Smart Meters. PG&E will provide a translation between SP_ID and Badge numbers upon request.

Source List

At the end of each Report, PG&E has included a list of records on which it relied in drafting each Report. When PG&E indicates in a Report that information is per PG&E records, PG&E is referring to the records identified at the end of the Report. Where records have been produced, PG&E provided the Bates number. In addition to the items on the source list, PG&E relied on a variety of internal databases to make an assessment of location information regarding devices and individuals (*e.g.*, GIS, GPS) and observations made by PG&E employees including the first PG&E employee who attempted to access the incident location before the CPUC’s site visit with PG&E to the incident location.